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CLASSIFICATION:

EXHIBIT R-2, RDT&E Project Justification						DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0101226N / Sub Acoustic Warfare Development				PROJECT NUMBER AND NAME 1265 Submarine Defensive Warfare Systems			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to Complete	Cost to Complete
Total PE Cost	11.232	9.399	2.131	4.280	7.576	7.782	7.946	CONT.	CONT.
1265 Submarine Defense Warfare	11.232	8.399	2.131	4.280	7.576	7.782	7.946	CONT.	CONT.
Issue 9999 - Congressional Add	0.000	1.000	0.000	0.000	0.000	0.000	0.000	CONT.	CONT.
RDT&E Articles Qty									

Defense Emergency Responses Funds (DERF): Not Applicable

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project develops a Submarine Defensive Warfare System (SDWS) to improve the effectiveness and survivability of all classes of US submarines. Acoustic Intercept consist of developing a new acoustic sensor, the Sparsely Populated Volumetric Array (SPVA), that will improve the performance of acoustic intercept systems and will provide a ranging capability for submarines through Acoustic Rapid COTS Insertion (ARCI) and Advanced Process Build (APB) software improvements. Littoral Warfare Weapon (LWW) will enable engagement of air threats and potentially small boats through adaptation of an existing air-to-air missile for submarine launch. Common Very Lightweight Torpedo (CVLWT) (ATT/CRAW) will conduct a dynamic launch study to determine physical capability of the All-Up-Round (AUR), as designed for Surface Ship Torpedo Defense application, to survive storage and launch environments for the CSA MK 2 Countermeasure Launcher. Next Generation Countermeasure (NGCM) efforts entails simulation and effectiveness analysis of new technologies from Future Naval Capability (FNC) and SBIR efforts at the Weapons Analysis Facility (WAF). The WAF analysis provides the US Navy with robust testing of new hardware and software within a detailed representation of complex acoustic environments.

FY06 Congressional Add to continue the development of the Mobile Acoustic Countermeasure Device (MACD).

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B. Accomplishments/Planned Program

Acoustic Intercept	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.955	0.000	0.000
RDT&E Articles Quantity			

FY05 - Participated in APB 05 Sea-Test.

WAF Analysis	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.473	1.500	1.500
RDT&E Articles Quantity			

FY 05-07 - Continued to conduct countermeasure proofing and effectiveness analysis for designated torpedo at Weapons Analysis Facility (WAF) .

NGCM	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	5.239	4.899	0.631
RDT&E Articles Quantity			

FY05-Began transition of Future Naval Capability (FNC) technologies into existing fleet countermeasures.
FY06-07 - Continue transitioning of Future Naval Capability (FNC) technologies into existing fleet countermeasures.

CVLWT (CRAW/ATT)	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.565	2.000	0.000
RDT&E Articles Quantity			

FY05 - Conducted a dynamic study on submarine launch design.
FY06 - Analyze data from study to address constraints of the submarine launched ATT design and assess hardening ATT for Sub launch applications.

LWW	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.000	0.000	0.000
RDT&E Articles Quantity			

FY05- Congressional Plus-Up Add to continue seeker characterization study and conduct land based demonstration of the AIM-9X Missile.

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C. PROGRAM CHANGE SUMMARY:			
Funding:	FY 2005	FY 2006	FY 2007
FY 2006 Pres Controls	11.322	8.527	2.164
FY 2007 Pres Controls	11.232	8.399	2.131
Total Adjustments	(0.090)	(0.128)	(0.033)
Summary of Adjustments:			
Contract Support Reduction	0.000	0.000	(0.015)
Pay Rates	0.000	0.000	(0.028)
SBIR	(0.084)	0.000	0.000
Nuclear Physical Security	0.003	0.000	0.000
Inflation	0.000	0.000	0.010
Recissions	0.000	0.128	0.000
Miscellaneous Reduction	(0.009)	0.000	0.000
Subtotal	(0.090)	0.128	(0.033)
Schedule:			
Not Applicable			
Technical:			
Not Applicable			

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D. OTHER PROGRAM FUNDING SUMMARY:							
<u>Line Item No. & Name</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
OPN - 221000/221005 Submarine Acoustic Warfare Systems	20.713	25.470	20.227	16.890	20.833	21.246	21.587
 E. ACQUISITION STRATEGY: * See Attached Schedule							
 F. MAJOR PERFORMERS: ** See Attached R-3							

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Exhibit R-3 Cost Analysis (page 1)								DATE:		February 2006		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME							
RDT&E, N /BA-7			0101226N / Sub Acoustic Warfare Development		1265 Submarine Defensive Warfare Systems							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total FY04 and PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
WAF Analysis	WX	NUWC Newport, RI	3.508	1.473	10/04	1.500	02/06	1.500	12/06	CONT.	CONT.	
SPVA System Engineering	CPFF	AAC Ronkonkoma, NY	0.900	0.955	12/04	0.000		0.000		CONT.	CONT.	
NGCM System Engineering	WX	NUWC Newport, RI	0.000	4.624	12/04	4.299	02/06	0.506	01/07	CONT.	CONT.	
NGCM System Engineering	CPFF	System Planning and Analysis, Arlington, VA	0.000	0.429	07/05	0.300	03/06	0.000		CONT.	CONT.	
LWW	WX	NUWC Newport, RI	0.429	0.300	04/05	0.000		0.000		CONT.	CONT.	
LWW	CPFF	Raytheon Middleton, RI	0.656	2.159	05/05	0.000		0.000		CONT.	CONT.	
LWW	MP	PEO Missiles & Space, Redstone Arsenal, AL	0.000	0.359	08/06	0.000		0.000		CONT.	CONT.	
LWW	WX	NAWCW, Point Mugu, CA	0.000	0.027	04/05	0.000		0.000		CONT.	CONT.	
LWW	MP	Edwards AFB, Edwards, CA	0.000	0.018	10/06	0.000		0.000		CONT.	CONT.	
LWW	CPFF	Lockheed Martin, Manassas, VA	1.800	0.000		0.000		0.000		CONT.	CONT.	
CVLWT (CRAW/ATT)	FFP	PSU State College, PA	0.000	0.100	02/05	1.800	02/06	0.000		CONT.	CONT.	
CVLWT (CRAW/ATT)	WX	NUWC Newport, RI	0.000	0.225	12/04	0.100	02/06	0.000		CONT.	CONT.	
CVLWT (CRAW/ATT)	WX	NSWC Crane, IA	0.000	0.240	12/04	0.100	02/06	0.000		CONT.	CONT.	
Subtotal Product Development			7.293	10.909		8.099		2.006		CONT.	CONT.	
Remarks:												
Development Support											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Miscellaneous											0.000	
Subtotal Support			0.000	0.000		0.000		0.000			0.000	

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Exhibit R-2a, RD TEN Project Justification
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Exhibit R-3 Cost Analysis (page 2)								DATE: February 2006				
APPROPRIATION/BUDGET ACTIVITY RD&E, N /BA-7			PROGRAM ELEMENT NUMBER AND NAME 0101226N / Sub Acoustic Warfare Development			PROJECT NUMBER AND NAME 1265 Submarine Defensive Warfare Systems						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.000	0.000		0.000		0.000			0.000	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	C/CPFF	EG&G Gaithersburg, MD	0.400	0.273	07/05	0.250	12/05	0.100	11/06	CONT.	CONT.	
Travel		PMS415	0.200	0.050	11/04	0.050	11/05	0.025	11/06	CONT.	CONT.	
Labor (Research Personnel)											0.000	
SBIR Assessment											0.000	
Subtotal Management			0.600	0.323		0.300		0.125			0.000	
Remarks:												
Total Cost			7.893	11.232		8.399		2.131			0.000	
Remarks:												

















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Exhibit R-2a, RD&E Project Justification
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EXHIBIT R-4, SCHEDULE PROFILE (page 1)				DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4				PROJECT NUMBER AND NAME 1265 Submarine Defensive Warfare Systems			
	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
ACOUSTIC INTERCEPT IMPROVEMENT INITIATIVE SPVA							
							
	Transition Phase						
WEAPONS ANALYSIS FACILITY (WAF)	CM Effectiveness / WAF Threat Vulnerability						
COMMON VERY LIGHTWEIGHT TORPEDO (CVLWT) (CRAW/ ATT)							
TORPEDO DEFENSE WORKING GROUP (TDWG) / NEXT GENERATION COUNTERMEASURE (NGCM)	 Signal Generator Band	 Single Crystal Sonar Freq.	 Group Behavior	 ACCOMS	 Continue Technology Insert		
	 Tactical/ Adaptive Proc. (SACM)	 Full Duplex Mobility	 Classification Table	 Fire Through Friendly Fire			
	 Single Crystal Torpedo Freq.		 RF Up-Link	 MS B			

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 ONR Technology Inserts

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-7	PROGRAM ELEMENT NUMBER AND NAME 0101226N / Sub Acoustic Warfare Development	PROJECT NUMBER AND NAME 9999 Congressional Plus-Up: 9790N		
CONGRESSIONAL PLUS-UPS:				
	FY 06			
9790N				
Mobile Acoustic Countermeasure	1.000			
<p>FY06- Congressional Plus-Up Add to continue the development of the Mobile Acoustic Countermeasures Device (MACD) that will be deployed from a submarine or surface ship in response to an in-bound torpedo threat.</p>				

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